Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A device for navigating an instrument in a body volume that is subject to a spontaneous movement caused by heartbeats and respiration, the device comprising:

a locating device for obtaining a location of the instrument, the instrument providing interpolation nodes;

a sensor for measuring a movement parameter describing the spontaneous movement of the body volume;

a ~~movement~~ model that describes, ~~with respect to at least one reference phase of the heartbeat,~~ a spontaneous movement field or vectorial displacement to which interpolation nodes of the body volume are subject during ~~the~~ at least one reference phase of the heartbeat; and

a data processing device coupled to the locating device and the sensor for using the ~~movement~~ model, the location and the movement parameter to calculate an estimated movement-compensated location corresponding to the location and the vectorial displacement of the instrument during the at least one reference phase.

2. (Currently amended) The device as claimed in claim 1, wherein the data processing device reconstructs the ~~movement~~ model using the location of interpolation nodes and associated movement parameters.

3. (Currently amended) The device as claimed in claim 2, wherein the data processing device supplements the movement of the interpolation nodes in the ~~movement~~ model by interpolation.

4. (Previously provided) The device as claimed in claim 2, wherein the data processing device determines the location of interpolation nodes from a plurality of three-dimensional images of the body volume obtained from at least one of X-ray, CT and MRI recordings.

5. (Previously provided) The device as claimed in claim 2, wherein the location of the interpolation nodes of the body volume correspond to the locations obtained with the locating device.

6. (Previously provided) The device as claimed in claim 5, wherein the locations are obtained without moving the instrument relative to the body volume.

7. (Previously provided) The device as claimed in claim 1, wherein the data processing device comprises a memory having a static image of the body volume and determines the

estimated movement-compensated location of the instrument in the static image during the at least one phase.

8. (Previously provided) The device as claimed in claim 1, wherein the sensor comprises an ECG apparatus and/or an apparatus for determining the respiration phase.

9. (Previously provided) The device as claimed in claim 1, wherein the locating device determines the location of the instrument using magnetic fields and/or optical methods.

10. (Currently amended) A method of navigating an instrument in a body volume that is subject to a spontaneous movement caused by the heartbeats and the respiration, the method comprising acts of:

obtaining a location of interpolation nodes of the body volume, the interpolation nodes are provided by the instrument;

measuring a movement parameter describing the spontaneous movement of the body volume;

providing a ~~movement~~ model that describes, ~~with respect to at least one reference phase of the heartbeat,~~ a spontaneous movement field or vectorial displacement to which interpolation nodes of the body volume are subject during ~~the~~ at least one reference phase of the heartbeat; and

using the ~~movement~~ model, the location and the movement parameter, to calculate an estimated movement-compensated position corresponding to the location and the vectorial displacement of the instrument during the at least one reference phase.